

-100-

Total No. of Pages 01  
SEVEN SEMESTER

Roll No. ....

**B.Tochl. (SE)**

**SUPPLEMENTRY EXAMINATION**

**FEB-2019**

**SE407 COMPUTER NETWORK**

Time: 3:00 Hours

Max. Marks: 40

Note: Answer ANY FIVE questions. All questions carry equal marks.  
Assume suitable missing data, if any.

1. [a] Describe Hamming code in detail.  
[b] The data string is 10011001000010011101. What remainder should be appended to message if the cyclic code polynomial used is  $x^3 + 1$ .
2. [a] Explain sliding window protocol and when it gives 100% efficiency and what is efficiency of stop and wait protocol.  
[b] What do you mean by Manchester encoding for signaling standard?
3. [a] A selective repeat ARQ is using 7 bits to represent the sequence number. What is the maximum size of the sliding window?  
[b] Explain how TCP performs congestion control based on three phases namely slow start, congestion avoidance and congestion detection.
4. [a] Draw and explain header format of Ethernet IEEE 802.3.  
[b] Difference between IPv4 and IPv6 and how IPv6 provides connection-oriented services.
5. [a] Explain subnetting in IP address explain with example.  
[b] The following is a dump of UDP header in hexadecimal format.  
CB84000D001C001C  
a) what is source port number. (in hexadecimal)  
b) what is destination port number (in decimal)  
c) what is total length of the user datagram. (in Bytes)  
d) what is the length of the data. (in Bytes)
6. Write short notes on (any 2):-  
[a] FTP & SMTP    [b] HTTP & POP3    [c] IPv4 Address